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ABSTRACT

Operation Waste Watch is a series of seven sequential learning units which addresses the subject of litter control and solid waste management. Each unit may be used in a variety of ways, depending on the needs and schedules of individual schools, and may be incorporated into various social studies, science, language arts, health, mathematics, and artistic activities. Each unit consists of a teacher's guide, filmstrip-cassette set, activity cards, test materials, duplicating masters, and a poster. This document contains the teacher's guide and activity cards for the second-grade unit entitled "Litter Pollution." In this unit, students study the negative effects of littering: injury to humans and animals, environmental pollution, and wasted resources. In addition, they explore a littered area, study the characteristics of litter, and learn how to clean it up. Thirteen individual- and 14 class-activity cards are included. (CW)

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Operation Waste Watch

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Litter Pollution

Level
2

Teacher Guide

DEPARTMENT OF WASTE MANAGEMENT
DIVISION OF LITTER CONTROL & RECYCLING
Eleventh Floor, Monroe Building
Richmond, Virginia 23219

INTRODUCTION

OPERATION WASTE WATCH is a series of 7 sequential learning units which addresses the subjects of litter control and solid waste management. The curriculum, developed by the Division of Litter Control, Virginia's state litter prevention agency, is designed for classroom use in kindergarten through grade six.

Each OPERATION WASTE WATCH unit may be used in a variety of ways, depending on the needs and schedules of individual students and schools. Each unit is interdisciplinary in approach and may be incorporated into the various science, social studies, and health curricula Virginia teachers are presently using. Language arts, mathematics, and artistic activities are also highlighted. Each unit consists of a teacher's guide, filmstrip-cassette set, activity cards for class and individual student use, test materials, coloring book duplicating masters or comic books, and a colorful poster. Each elementary school in Virginia may receive a complete set of OPERATION WASTE WATCH without cost.

Flexibility is a key element of the OPERATION WASTE WATCH program. The sequence of the units within the curriculum may be changed to suit the abilities of students in the individual school. For this reason, teachers should become familiar with each of the units. Each instructor should also feel free to present concepts found in previous units. This is especially important for upper elementary students who are unfamiliar with the solid waste vocabulary and ideas presented in earlier units. The materials in each unit are color-coded for easy identification.

The teacher is free to shorten or lengthen the series of activity cards which are the heart of the unit, to suit her/his schedule or to build her/his own unit around the OPERATION WASTE WATCH auxiliary materials.

OPERATION WASTE WATCH is based on WASTE IN PLACE, the elementary school curriculum recently created by Keep America Beautiful. Solid waste management has become a very important environmental topic, but it is a subject which is too often superficially addressed in elementary textbooks.

WASTE IN PLACE was the first sequential elementary curriculum in the United States to address the concepts of proper waste handling. WASTE IN PLACE is available at cost to all localities around the country organized under the Clean Community System of Keep America Beautiful and to other interested groups. In developing OPERATION WASTE WATCH for Virginia's elementary schools, the Division of Litter Control changed the format of WASTE IN PLACE and designed supplementary activities and materials, including audiovisual aids.

OPERATION WASTE WATCH differs significantly from WASTE IN PLACE in its approach to the subject matter only in Levels 2 and 3. The Division believes that the ideas presented in these 2 units merit special emphasis in a study of solid waste problems in Virginia. Level 2, LITTER POLLUTION, addresses pollution problems associated with litter, while Level 3, TRASH TRENDS, examines packaging trends in relationship to current solid waste problems.

Field Testing

Two versions of OPERATION WASTE WATCH were piloted during the 1979-1980 school year in over 125 classrooms in 14 school systems with very positive results. A summary of the results of this field testing is available from the Division. Based on the results of the piloting, portions of the draft curriculum were revised in the fall of 1980.

Changing Littering Behavior

In addition to equipping students with important facts about litter and solid waste management, OPERATION WASTE WATCH is designed to help students modify their everyday waste disposal habits.

A study of students' waste disposal behavior was conducted in the spring of 1980 by two psychologists from Virginia Polytechnic Institute and State University, Mr. John Cope and Dr. Scott Geller. Their study confirmed that students learn from involvement with OPERATION WASTE WATCH. Student test performance following the curriculum was statistically higher than performance on the pretest. (Grades 1, 4 and 6 were the levels involved in the study.) Almost all of the teachers indicated that the OWW program materials were interesting to the students.

Most of the teachers felt that their students' littering be-

havior had decreased as a direct result of the program. The Division of Litter Control encourages teachers to emphasize recycling and the proper disposal of wastes. With continued positive reinforcement of proper behavior, and practice by the children of proper disposal techniques, teachers will see an even greater reduction in littering behavior.

The Virginia Plan: A Model Program to Prevent Littering

The DIVISION OF LITTER CONTROL was established in 1977 to control, prevent, and eliminate litter from the state to the maximum practical extent.

One-half of Division funds are granted annually to the localities of the state to finance local litter prevention programs. Over 90% of the counties and cities annually apply for and receive grant money from the Division. To assist these localities in organizing effective, comprehensive, long-range litter control programs, the Division has developed an organizational package, THE VIRGINIA PLAN: A MODEL PROGRAM TO PREVENT LITTERING, which is available to all community leaders interested in developing local programs. OPERATION WASTE WATCH is one component of THE VIRGINIA PLAN.

The Division is encouraging local litter prevention coordinators to work closely with schools in each locality. Many localities are promoting the implementation of OPERATION WASTE WATCH in their schools.

CONTACT THE DIVISION OF LITTER CONTROL FOR THE NAME AND PHONE NUMBER OF THE LITTER CONTROL COORDINATOR IN YOUR LOCALITY.

OPERATION WASTE WATCH UNIT TOPICS

Level K

Natural and Man-Made Objects

Students practice classification skills and learn to differentiate between natural and man-made objects in indoor and outdoor environments. They also learn to identify litter.

Level 1

Waste Out of Place

Students classify objects into two categories, "waste objects" and "useful objects." In addition, they learn to identify litter and dispose of their own waste items properly.

Level 2

Litter Pollution

Students study the negative effects of littering: injury to humans and animals, environmental pollution, and wasted resources. In addition, they explore a littered area, study the characteristics of litter, and learn how to clean it up.

Level 3

Trash Trends

Students trace historical changes in consumption and packaging. They also study the roles of packaging in everyday life and learn the meaning of "biodegradable."

Level 4

Let's Waste Less Waste

Students examine changes which can be made in their homes to reduce solid waste and litter. They also explore various sources of litter in their communities.

Level 5

Trash Treasures

Students discover that while many things are recycled by nature, quite a number of modern products must be recycled by people. They learn that recycling and resource recovery can help save important resources which are often lost when items are tossed into a trash receptacle.

Level 6

Community Solutions for Solid Waste Pollution

Students study their own locality's solid waste problems and design a model waste disposal plan for an imaginary community.

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LEVEL 2

RATIONALE

This series of instructional materials, developed by the Division of Litter Control is designed to help elementary students deal effectively with solid waste problems encountered in their everyday lives. It will also prepare them to deal as adults with the growing problem of waste disposal facing each community. In Virginia, litter pickup alone is estimated to cost $25 million annually.

Litter is a very accessible pollutant and one even young children can comprehend. Children may be able to do very little to solve other environmental problems; but they can learn to dispose of waste properly, help recycle some items, and come to understand how their own behavior affects the environment. A litter prevention unit is an excellent place to begin creating environmental awareness. From this point we can begin building in our youth a strong sense of environmental stewardship and pride.

The materials, activities, and instructional resources selected for the second grade students introduce the idea of the dangers of litter for living things and the environment. The unit emphasizes the development of scientific observation and classification skills essential to the ultimate goal of preparing young citizens to make rational decisions about personal and community waste disposal. This program follows objectives established in **Program Goals and Objectives for Elementary Science,** developed by the Virginia Department of Education in 1978. If your students have not studied the Level K and 1 units of OPERATION WASTE WATCH, feel free to borrow ideas, activities, and filmstrips from these previous kits to prepare your students for the Level 2 ideas.

MAJOR IDEAS OF THE LEVEL 2 UNIT

1. Litter can injure people and animals.
2. Litter is expensive to pick up, wastes resources, contributes to pollution and can ruin the beauty of the environment.
3. People cause litter and are responsible for disposing of waste properly.

UNIT OBJECTIVES

At the completion of this unit, the student will be able to:

1. IDENTIFY man-made litter;
2. IDENTIFY litter composed of natural objects;
3. IDENTIFY littered objects which can hurt people or animals;
4. RECOGNIZE that each individual is responsible for disposing of his/her waste materials properly;
5. IDENTIFY common containers.

ELEMENTARY SCIENCE PROGRAM OBJECTIVES

The following program objectives should be emphasized in second grade science programs throughout Virginia and are incorporated into this unit (see reference 1, pg. 6):

1. Observing—The student will use all senses in the identification of objects and their properties, changes in properties, controlled observations, and ordering of a series of observations.
2. Classifying—The student will classify objects, actions, and phenomena.
3. Summarizing—The student will describe orally, in writing, or nonverbally, conclusions about the processes and products of scientific inquiry.
4. Valuing Scientific Inquiry—The student will participate willingly in science activities, accept evidence gathered through scientific methods, and value critical thinking.

INSTRUCTIONAL STRATEGY

1. Review this teacher's guide and study all unit components thoroughly. The activity cards are the heart of the unit. Also become familiar with the other OPERATION WASTE WATCH units.
2. Decide which elements of the unit kit and which activity cards you will use. Add your own ideas as necessary or pull activities from OPERATION WASTE WATCH UNITS on other grade levels.
3. Prepare all necessary materials and arrange for any outside speakers or field trips.
4. **Be sure to find out what your community is doing to fight the littering problem. Contact the Division of Litter Control or your local government.**

5. Administer the pretest to your students. Use the results to modify your unit plans as necessary.
6. Briefly discuss the topic and title of the unit with your class. Tell the students about some of the activities they will be involved in. Review with them the ideas of natural and man-made objects found in the kindergarten unit and waste and litter found in the Level 1 unit.
7. Explain the contents of the unit kit to your students.
8. Hang the poster in a prominent spot in your classroom.
9. Present the filmstrip to the class. After the showing, elicit discussion of important ideas.
10. Order the **Junior Ecology Club Certificates** from the Division.
11. Proceed with the INDIVIDUAL AND CLASS ACTIVITY CARDS.
12. Present the coloring books at some appropriate point in the unit. Use these as a motivational and teaching tool.
13. At the completion of the unit, present the filmstrip once again as a review activity. Elicit discussion of ideas the children have learned.
14. Administer the posttest to your students.
15. Return all unit components to the box for use by the next class.
16. **Be sure to review and reinforce proper waste disposal habits throughout the school year!**

TIME FRAME

The complete Level 2 unit will take approximately 24 classroom days (about 5 weeks) to complete.

If you want to shorten the unit to 2 or 3 weeks we recommend that you use just the CORE ACTIVITY CARDS. Each CORE ACTIVITY CARD is labeled CORE in the upper left-hand corner. Another method is to use the activity cards for developing your own shortened unit.

Allow approximately 20 minutes for administering the tests at the beginning and end of the unit. Each filmstrip viewing should take about 15 minutes. The INDIVIDUAL ACTIVITY CARDS will take about 5 hours of instruction time, as will the CLASS ACTIVITY CARDS. The coloring books will take approximately 40 minutes of instruction time to complete.

Remember, you may also find the Kindergarten Level and Level 1 materials helpful in teaching a litter unit to your class.

EVALUATION INSTRUMENTS

In the inside cover packet of the unit box, you will find directions for administering short tests to your students. The pretest results should tell you which students are already familiar with the major ideas of the unit and which students may need special help grasping these ideas.

The posttest results will help you determine the effectiveness of your unit.

FILMSTRIP AND CASSETTE

The filmstrip and cassette set provided with this unit is designed for use as both an introductory and review activity. Before using the ACTIVITY CARDS, present the filmstrip to the class as an introduction to the unit. This preliminary activity may be done in small groups or as a total class activity. The cassette has audible tones and should be used with a manually-operated filmstrip projector. The filmstrip is brief and is to be used as a teaching tool. **During the showing, please stop the cassette and filmstrip as necessary to encourage group discussion of the ideas presented.**

At the completion of the ACTIVITY CARDS, the filmstrip may be viewed a second time as a review and culminating class activity. Included in this guide is a copy of the filmstrip script. The script may be read aloud by an adult, if for any reason a cassette recorder is not available, or if this delivery method is preferred.

INDIVIDUAL ACTIVITY CARDS (IACs)

The 13 IACs have been designed for use by small groups or individual students. They can be passed out to the students or learning centers can be set up using the IACs as the foundation. For many classes of young children, the IACs may have to be combined with the CLASS ACTIVITY CARDS (CACs) and used as a lesson plan for total class activities. We encourage you to restructure, modify, delete, and create additional IAC activities as necessary.

We recommend that the students complete the IACs before the CACs. However, if this is not possible, the two sets may be used simultaneously. IACs which provide more advanced activities are marked with asterisks (*). Students who do very well on the pretest may be encouraged to concentrate on these more difficult exercises.

CLASS ACTIVITY CARDS (CACs)

The 14 CACs provide a sequential set of instructional activities. They are basically a lesson plan presented in card form to simplify modifications, additions, deletions, or restructuring by the teacher.

COLORING BOOKS

In the kit box you will find a folder containing duplicating masters for the coloring book, entitled Let's Stop Litter. Before you teach the unit, duplicate a copy of the coloring book for each student.

At some point in the unit, pass out the coloring books to your students. Read the captions to your class or allow the children to read them out loud. Discuss the illustrations and the theme of the story presented.

After the children color the pages, instruct them to take the books home to share with their families.

Quantities of printed, assembled coloring books are available from the Division of Litter Control on a limited basis.

JUNIOR ECOLOGY CLUB PROGRAM

Since the fall of 1978, the Division of Litter Control has sponsored a successful ECOLOGY CLUB PROGRAM for grades 6-12. Because of the favorable input from teachers in the lower grades, the Division has developed a JUNIOR ECOLOGY CLUB PROGRAM for students in kindergarten through grade 5 who have completed at least one unit of OPERATION WASTE WATCH. To obtain membership certificates for your students, simply **duplicate** the JUNIOR ECOLOGY CLUB ORDER FORM included in this guide and return a completed copy to the Division.

The certificates may be used simply as a final reward for your students once they have completed the OPERATION WASTE WATCH unit, or used to begin an active ecology club program with your class. A list of suggested club activities will be included with your certificates.

COMING IN THE FUTURE

A major advantage of the activity card format used in OPERATION WASTE WATCH is that additional cards may be added and revisions made at minimal expense to the Division.

The Division will continue to evaluate the program throughout the coming years. As a result of this evaluation, new and revised ACTIVITY CARDS will be developed periodically and sent to your school.

ORDERING REPLACEMENT MATERIALS FOR THIS UNIT

Replacement copies of the filmstrip, cassette, poster, teacher's guide, activity cards, and coloring/comic books for this unit may be obtained without charge from the Division of Litter Control.

DUPLICATING MASTERS

This unit contains the duplicating masters listed below. Photocopy these materials as necessary:

1. PRETEST AND POSTTEST
2. WORKSHEET

VOCABULARY

As you proceed through this unit, help your students learn the definitions of the following terms. Remember, it is generally agreed that it is meaningless for children to merely memorize a definition without personally experiencing the concept.

1. ENVIRONMENT—our surroundings, both natural and man-made
2. LITTER—man-made waste or trash, or a natural object used by people, which is in the wrong place through the improper action of an individual
3. MAN-MADE—anything in our world made by people or machines
4. MAN-USED—anything in our world used by people
5. NATURAL—anything in our world not made by people or machines
6. POLLUTION—anything put into the environment which could hurt people, plants or animals
7. SOLID WASTE—objects that are man-made or man-used which are no longer useful

REFERENCES

1. Division of Sciences and Elementary Administration, Virginia Department of Education. Program Goals and Objectives for Elementary Science. Richmond: n.p., 1978.
2. Ward, Penny. Deadly Throwaways. Washington, D.C.: Defenders of Wildlife. 1975.

LEVEL 2
TEACHER CARD
OPERATION WASTE WATCH
VIRGINIA DIVISION OF LITTER CONTROL

Litter Pollution Individual Activity Cards

Introduce the INDIVIDUAL ACTIVITY CARDS (IACs) after all the students have seen the filmstrip. The 13 IACs are designed for small groups of children or individual students. However, the IACs may be used as total class activities if it is not feasible to carry out individual or small group activities with your class.

Most of the Level 2 IACs need not be completed in numbered sequence. However, IAC 1 and 2 go together, as do IAC 11 and 12. For most cards someone (you, an aide, or parent) will have to read the directions to the students.

There are several ways to use the IACs:

1. Since many of the cards require verbal responses, **one group of students could work with you** on a few of the cards while an aide or other adult uses some other cards with the rest of the children.
2. Another way to manage the IACs is to use three or four IACs at one time set up at a **Learning Center.** Let the majority of the students work on other tasks while you assist a small group with the IACs.
3. You may decide to **put the IACs on audiotape.** Small groups of children could then use the cassette player while you work with the rest of the class.
4. Another idea is to **photocopy several additional sets of the IACs** so that small groups of children can work on the same IAC simultaneously.
5. You may decide to simply **combine the IACs with the CACs** and use them as total class activities.

Cards containing more difficult activities are marked with asterisks (*) in the upper right-hand corners. Children who do well on the pretest may profit from concentrating on these more difficult exercises.

IDEA AND OBJECTIVE NOTATIONS REFER TO NUMBERED IDEAS AND UNIT OBJECTIVES ON PAGES 1 AND 2 OF THE TEACHER GUIDE.

To shorten the unit from approximately 5 weeks to 2 or 3 weeks, we suggest that only the CORE ACTIVITY CARDS be used. Core cards are labeled CORE in the upper left-hand corners.

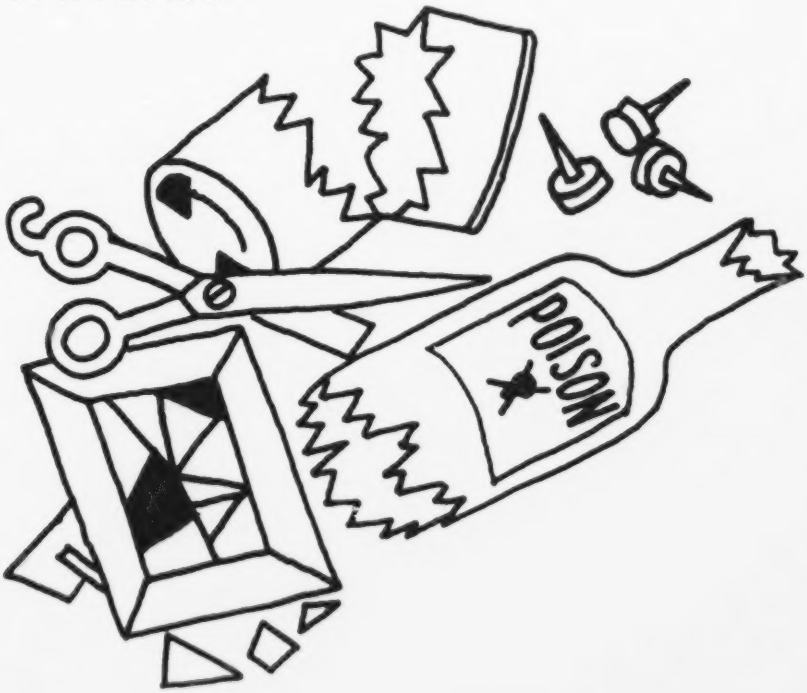
See individual cards for materials needed. For IAC-10, you will need to assemble 3 or 4 "CONTAINER BOXES" for your class. To make a "CONTAINER BOX," put several empty containers (packaging items) such as toothpaste tubes and boxes, cereal boxes, plastic and cardboard milk containers, candy boxes, aluminum cans, steel cans, glass bottles, and litter bags into a large cardboard box. Label the large box, "CONTAINER BOX."

Be sure all children wear gloves when they pick up litter, especially glass and metal objects. Supply sturdy gloves for your students to use or ask that each child bring a pair to class.

A Pain!

Think about one time when you or someone you know was hurt by litter (like broken glass or a nail). Draw a picture to show what happened.

Go to IAC-2/13



How Did Litter Get There?

Now think about how the litter got in the wrong place. Did a person drop it? At the bottom of the picture, write a sentence about where the litter came from. Now write a sentence about where the trash should have been put.

Help your teacher hang up your picture in the classroom.

Classroom Litter

Look for litter in the classroom. Now look out at the school grounds.

Make a list of litter you see that could hurt someone.

Draw a picture of where the litter should go. Give your list and picture to your teacher.

The Polluted Lake

Look at the filmstrip again.

Write the answers to these 3 questions on your paper:

1. Why was the lake closed to swimming?
2. What kind of litter was spoiling the lake?
3. Where did the litter come from?

Give your paper to your teacher.

Waste in the Water

Ask your teacher to partly fill a glass jar with water. What does the water look like? What does it smell and feel like?

Put some small pieces of litter in the jar. Use paper, glass, fruit peelings, plastic, and aluminum. Look at the litter each day for several days. Number your paper from 1 to 5. Write the answers to these questions on your paper:

1. What pieces of litter change?
2. Which ones stay the same?
3. Does the water change color?
4. Can litter cause water pollution?
5. What might happen if plants and animals lived in this water?

Give your paper to your teacher.

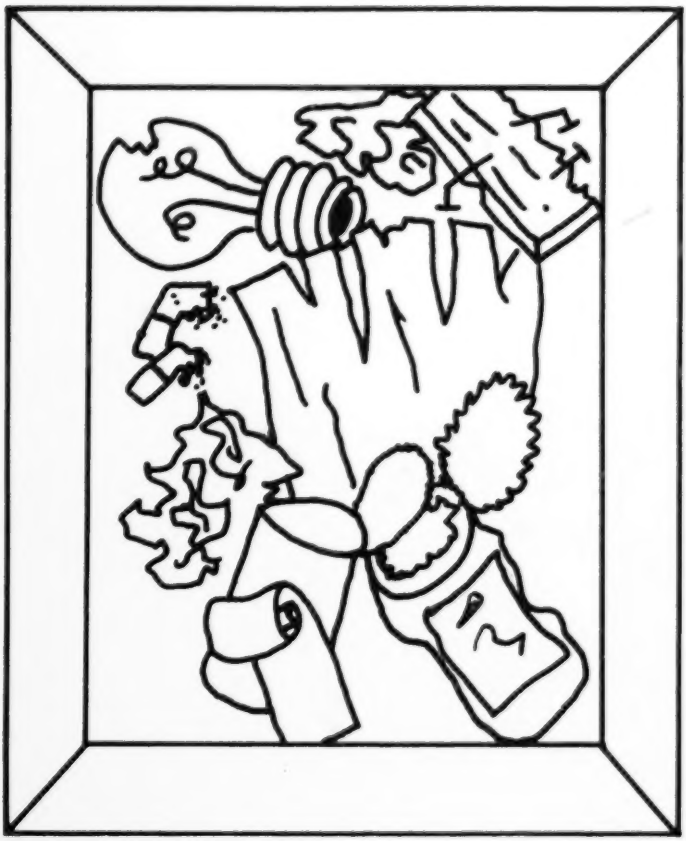
Park Problems

Make a list of litter you can find in parks. Put an "X" next to the name of each piece of litter which could hurt an **animal.** Put an "O" next to the name of each piece of litter which could hurt a **person.**

Give the list to your teacher.

Collages

Bring in some litter from the school yard. **Be sure to wear gloves!** Make a collage of litter that hurts animals and people.



Solutions

What can we do to keep litter from hurting people and animals? Think of three answers to go in the empty boxes below. Draw 3 empty boxes on a piece of paper. Write your answers in these boxes. Give the paper to your teacher.

Put up anti-littering signs.

Put up fences around trash cans.

Put more trash cans in the area.

Telling People About The Problems

Make an anti-littering sign on poster paper. In your sign, tell about the dangers of litter. Ask your teacher to hang your sign in the hallway.

Think About Containers

Get a CONTAINER BOX from your teacher. Look at the objects inside the box.

Each object in the box is a man-made object. Each object is also a **container.** A container is something that is used to hold something else.

Draw a picture of each container in the **CONTAINER BOX.** Under the picture write the name of what the container usually holds.

MILK TOOTHPASTE

Think of ways you can reuse some of the containers for other things. Can you make a bird feeder from a milk container? Can you recycle the aluminum you find?

Containers should never be littered.

There is one **container** in the classroom we use to hold waste. What is it called? Write its name on your paper.

Give your paper to your teacher.

Natural and Man-Made Litter

Natural litter can help the environment. When objects such as leaves and branches rot, they help make new soil. Natural litter can also feed animals. And it gives homes to little animals. But natural litter can be dangerous if people put it in the wrong place. A tree branch is **natural** litter. If the branch is on your stairs at home, it is in the wrong place. Someone could trip over it and fall.

Man-made objects such as glass and metal should not be littered in the environment. Man-made litter can hurt living things. Some man-made litter stays in the environment a long, long time. Glass, plastic and aluminum don't rot away.

List some ways natural litter can help the environment. Now list some ways man-made litter can hurt the environment. Give your lists to your teacher.

Go to IAC-12/13

Helpful Litter?

Can **man-made** litter ever help animals? For example, can a littered drink can become a home for a small animal?

After school, take a walk near your home. Look for litter. Are any animals living under the litter or in the litter? Do these animals help people or the environment? Ask your teacher.

A Poem

Make up a poem about how man-made litter can hurt animals and people. Read your poem to your friends.

Give your poem to your teacher to hang up in the classroom.

LEVEL 2
TEACHER CARD
OPERATION WASTE WATCH
VIRGINIA DIVISION OF LITTER CONTROL

Litter Pollution Class Activity Cards

The 14 CLASS ACTIVITY CARDS (CACs) are designed for you to use with the whole class or a large group of students. Used in numerical order, these cards present a suggested sequence of activities to help develop the unit ideas. The CACs should be used after the students have seen the filmstrip. They should be used after or in conjunction with the INDIVIDUAL ACTIVITY CARDS (IACs). After using all the CACs, you may decide to present the filmstrip again as a review activity.

To shorten the unit, use only the CACs which present core activities. These CORE ACTIVITY CARDS are labeled CORE in the upper left-hand corners.

IDEA AND OBJECTIVE NOTATIONS REFER TO NUMBERED IDEAS AND UNIT OBJECTIVES ON PAGES 1 AND 2 OF THE TEACHER GUIDE.

Be sure each child wears sturdy gloves when he/she handles litter.

The Litter Lot

Find a nearby area where the class can observe the dangers of litter to man and animals. You could choose a vacant lot, a field, a nearby woods, etc. A site of approximately 15 by 15 meters should be selected. Help the children measure the lot and place markers to indicate the boundaries.

(If this activity is too complicated for your students, simply take them on a walk to look at litter in the neighborhood or school yard.)

Go on to CAC-2/14

CORE

Let the children walk around inside their "Litter Lot." Ask them to tell you what they see. Make a list of everything that they see (trees, large rocks, flowers, paper, cans, animals).

Back in the classroom, put the list on the blackboard. Ask the children which objects are man-made and which are natural. Ask a student to draw a star by the name of each man-made object.

Ask a student to put a circle around each drawing of a man-made object which is also a container such as a can and bottle. Discuss the former use of each container.

Ask the class whether any of the containers could be reused or recycled.

Go on to CAC-3/14

CORE

Ask the children to draw pictures of their "Litter Lot" including the man-made and natural objects they saw. Ask them what they like or dislike in the "Litter Lot."

Ask the children whether or not there is any **pollution** in their "Litter Lot." Ask them if litter is a form of pollution. Write "pollution" on the board and discuss its meaning.

Go on to CAC-4/14

CORE

Ask the children how the litter got in the lot. Ask what the most common types of litter were. Put a list of these on the board. Ask the pupils to read the list out loud. Ask the children to copy the list on their papers and illustrate each word.

Go on to CAC-5/14

CORE

Ask a child to come to the board, point to one word, and call on a classmate to tell how this piece of litter could hurt animals or people. Proceed through the list in this manner.

Go on the CAC-6/14

CORE

Discuss the fact that people are responsible for disposing of their own waste properly. Encourage the children to discuss how they should dispose of waste:

1. inside their homes
2. in their yards
3. walking down a street or road
4. in the classroom
5. in the hallway
6. in a car or bus
7. on the playground
8. in a park
9. in the woods
10. on a boat

Go on to CAC-7/14

CORE

Ask the students how people could make the "Litter Lot" a safer place for animals and people.

People could:
1. clean up the litter.
2. put a trash barrel there.
3. make "NO LITTERING" signs for the lot.
4. use ashtrays so that littered cigarettes would not have a chance to cause a fire.
5. ?
6. ?

Natural Litter

Take the class back to the "Litter Lot" to look for **natural litter.**

Paper, bottles, and cans are examples of **man-made litter.** Pebbles, leaves, twigs, pine needles, pine cones, etc., are examples of **natural litter.** Most natural litter accumulates through natural forces and is useful to the environment in some way. However, natural objects can be a problem if they are in the wrong place (for example, a pile of leaves left in the road, or ash from Mt. Saint Helens).

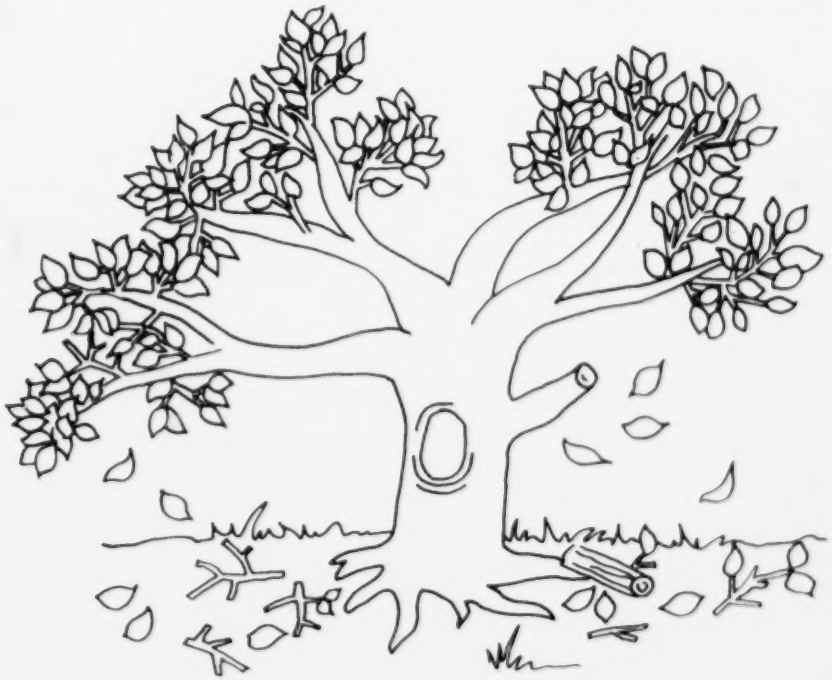
Ask the children to collect a few pieces of natural litter.

Go on to CAC-9/14

Back in the classroom, discuss the sources of the natural litter. Ask the children how each object is useful to the environment.

Natural objects are often useful to people, too. There are many unique gifts the children can make by recycling the natural objects they find. Of great help in planning nature crafts is Snips, Snails and Walnut Whales—Nature Crafts for Children by Phyllis Fiarotta, listed in the Teacher's Guide and available in bookstores.

Go on to CAC-10/14



A Cleanup

Help the children conduct a cleanup of their "Litter Lot." Help them pick up all man-made litter and any harmful natural litter.

Put all the litter into one big pile. Ask the children where this trash should have gone in the first place. Discuss the fact that a trash receptacle is the proper container for most trash.

Go on to CAC-11/14

Some of the natural litter, such as leaves or rocks, could possibly be useful somewhere in the lot. Help the children put all real waste in a trash receptacle and all usable objects in the proper places. If there are any reusable or recyclable man-made objects, use or recycle them!

Note: Your local Department of Highways and Transportation regional office may be able to supply litter pickup bags.

Go on to CAC-12/14

Ask the students how they could teach other children about the dangers of litter to animals and people.

With the class, plan an activity to publicize litter facts in your school.

One idea is to create a bulletin board. One half could show an ugly littered scene, the other half the same spot clean and beautiful.

The Animals' Point of View

To center attention upon the idea that animals are hurt by litter, help the children create zoo animals and/or animals of Virginia from recycled trash. Cardboard, towel and tissue rolls, cans, plastic jugs, and newspaper will come in handy. The Virginia Commission of Game and Inland Fisheries has excellent reprints illustrating animals of Virginia. (Their address is: 4010 West Broad Street, Richmond, VA 23230.)

Talk about problems litter causes for animals. Help the children write clever statements **from the animals' point of view** expressing their opinions of littering by people. Write the statements on cardboard strips.

Set up a display of the animals and their statements in the room or hallway display case.

Examples of Statements: "I'm a bear, and I can't bear litter!"
"I'm a water snake. Don't throw trash in my lake!"
"I'm a lion, and I hate to lie on litter!"

An article which will give you some innovative ideas for creating the animals is "Garbage Eaters," Ranger Rick's Nature Magazine, July 1976, pp. 16-19.

Some common types of litter and their harmful effects on wildlife are listed here for your reference:

Metal Pull-Tabs—Fish (and human babies) can choke on these or swallow them. Since January 1979 they have been outlawed in Virginia.

Plastic 6-Pack Carriers—These can strangle or starve birds and other animals by putting such pressure around their necks that they can't swallow. These carriers should always be cut apart with scissors before discarding.

Bottles and Cans—These may cut people or animals. They can lame large animals such as cattle, and often trap small mammals which can't climb out once they're inside.

Plastic Strips and Bags—These can suffocate baby birds when used in nest construction.

Matches and Cigarettes—These can lead to fires.

END

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